DCR-TRV33/TRV33E

RMT-814

SERVICE MANUAL

LEVEL 3

Ver 1.1 2003. 06

Revision History

Photo : DCR-TRV33

US Model
Canadian Model
Korea Model
DCR-TRV33
AEP Model
UK Model
North European Model
East European Model
Chinese Model
Australian Model
DCR-TRV33E
E Model
Hong Kong Model
Tourist Model
DCR-TRV33/TRV33E

Z MECHANISM

Link

SCHEMATIC DIAGRAMS | PRINTED WIRING BOARDS | REPAIR PARTS LIST

- For INSTRUCTION MANUAL, refer to SERVICE MANUAL, LEVEL 1 (987622341.pdf).
- Reference No. search on printed wiring boards is available.

The information that is not described in this Service Manual is described in the LEVEL 2 Service Manual.
When repairing, use this manual together with LEVEL 2 Service Manual.

Contents of LEVEL 2 Service Manual

1. SERVICE NOTE	
2. DISASSEMBLY	
3. BLOCK DIAGRAMS	OVERALL POWER
4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS	CD-431, LB-085, VA-118, CK-129, PD-188, JK-242, MA-421, CONTROL SWITCH BLOCK (FK-CX4000), FP-467, FP-468, FP-228, FP-626 FLEXIBLE
5. REPAIR PARTS LIST	EXPLODED VIEWS
	ELECTRICAL PARTS LIST
6. ADJUSTMENTS	

Mini DV Digital Video Cassette

DIGITAL VIDEO CAMERA RECORDER

SONY®

COVER

Self Diagnosis Supported model Digital Handycam InfoLITHIUM M SERIES Cassette Memory MEMORY STICK

CAUTION :
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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COVER

4-2. SCHEMATIC DIAGRAMS

Link

- VC-313 BOARD (1/14) (A/V CONV., TIMING GEN)
- VC-313 BOARD (2/14) (CAMERA PROCESS)
- VC-313 BOARD (3/14) (HALL AMP, IRIS DRIVE)
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- VC-313 BOARD (7/14) (DV/RF SIGNAL PROCESS)
- VC-313 BOARD (8/14) (DV INTERFACE)
- VC-313 BOARD (9/14) (HEAD AMP, PLL, A/D-D/A CONVERTER)
- VC-313 BOARD (10/14) (VIDEO IN/OUT SELECT)
- VC-313 BOARD (11/14) (DRUM/CAPSTAN/LOADING MOTOR DRIVE)
- VC-313 BOARD (12/14) (CAMERA/MECHA CONTROL)
- VC-313 BOARD (13/14) (AUDIO IN/OUT SELECT)
- VC-313 BOARD (14/14) (CONNECTOR)

- COMMON NOTE FOR SCHEMATIC DIAGRAMS
- WAVEFORMS

COVER

4-2. SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example

C541	L452
22U	10UH
TA A	2520

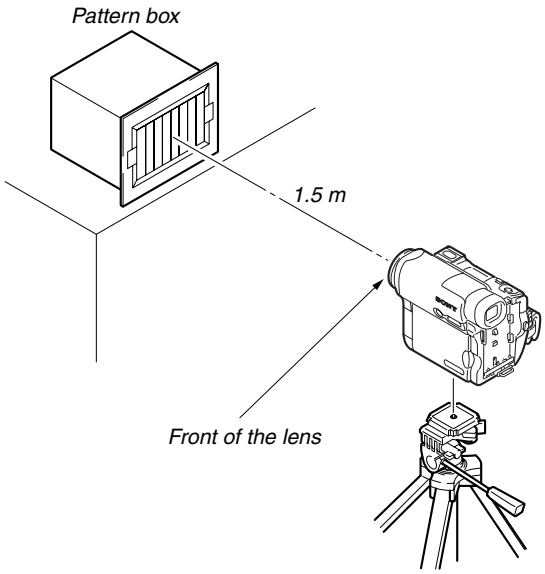
Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with * differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.
- : VIDEO SIGNAL (ANALOG)
- : AUDIO SIGNAL (ANALOG)
- : VIDEO/AUDIO SIGNAL
- : VIDEO/AUDIO/SERVO SIGNAL
- : SERVO SIGNAL
- Circled numbers refer to waveforms.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

1. Connection



2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

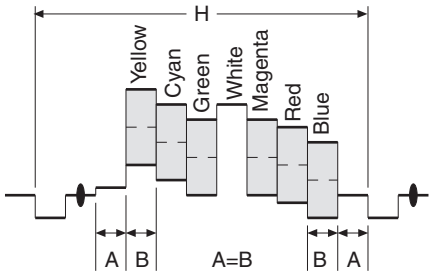


Fig. a (Video output terminal output waveform)

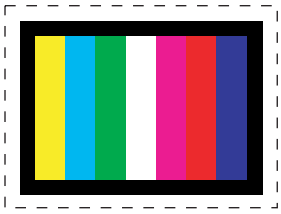


Fig.b (Picture on monitor TV)

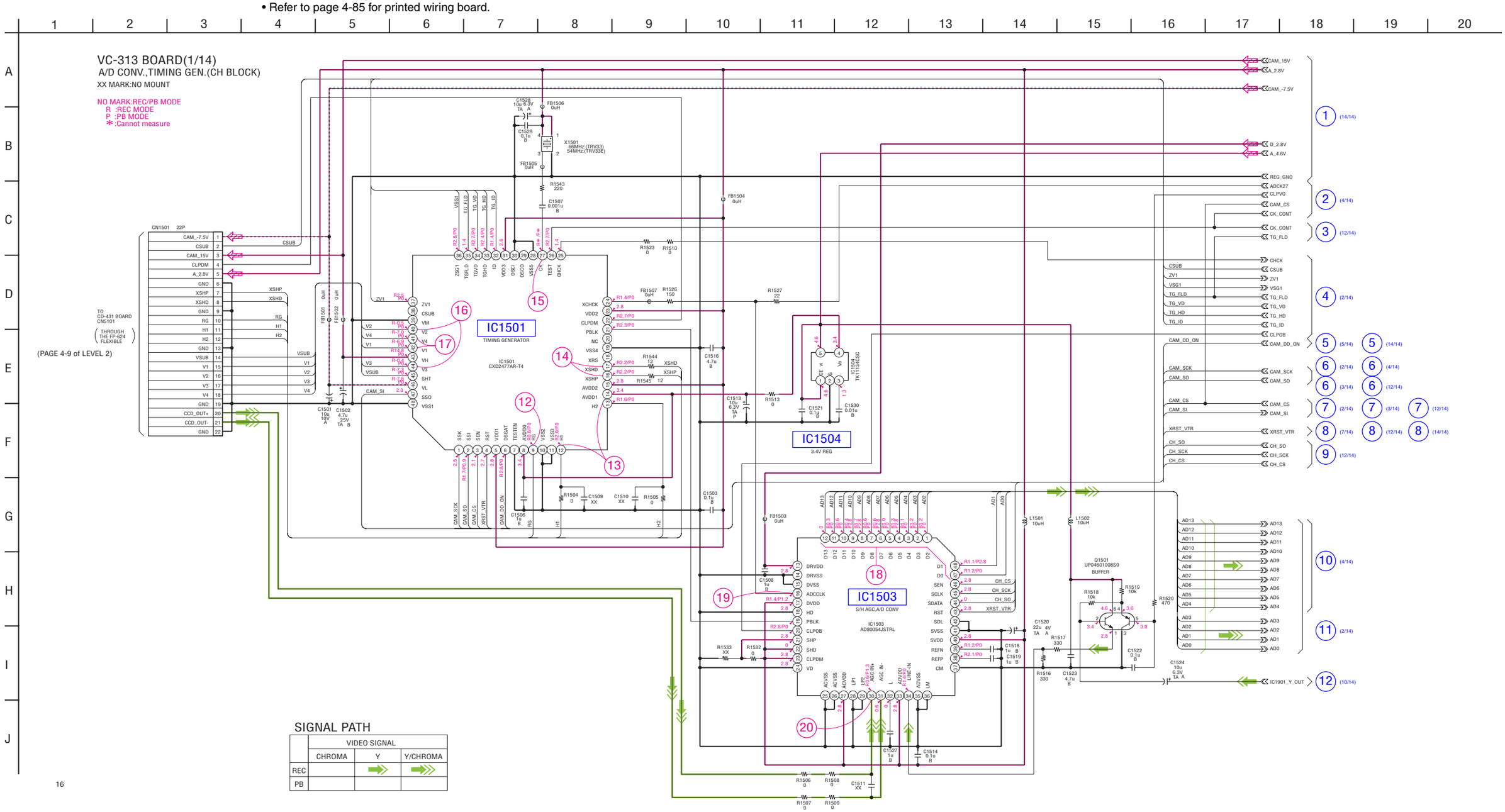
When indicating parts by reference number, please include the board name.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note :** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

4-2. SCHEMATIC DIAGRAMS

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.



For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(2/14)

CAMERA PROCESS(CAM BLOCK)

XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with▲mark,is not possible.

IC1601

CAMERA PROCESS

▲ IC1601
CXD3156GA-T6
CSP(CHIP SIZE PACKAGE)IC

SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	→	⇒	⇛
PB	⇨	⇨	⇨

R1602,R1603,R1604,R1605
XX 0 0 XX
0 XX XX 0

(DCR-TRV33)
(DCR-TRV33E)

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(3/14)

HALL AMP,IRIS DRIVE(LD BLOCK)

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
* :Cannot be measured

LENS BLOCK is replaced as a block.
So that this PRINTED WIRING BOARD and SCHEMATIC DIAGRAM are omitted.

CN1301 27P

I_BIAS+_P 1 — I_BIAS+
I_HALL-_P 2 — I_HALL-
I_DRIVE-_P 3 — I_DRIVE-
I_DRIVE+_P 4 — I_DRIVE+
I_BIAS-_P 5 — I_BIAS-
I_HALL+_P 6 — I_HALL+
Z_MR_VCC 7
Z_MR_A_P 8 — Z_MR_A
Z_MR_GND 9
Z_MR_B_P 10 — Z_MR_B
ND_BIAS+_P 11 — ND_BIAS+
ND_HALL-_P 12 — ND_HALL-
ND_DRIVE-_P 13 — ND_DRIVE-
ND_DRIVE+_P 14 — ND_DRIVE+
ND_BIAS-_P 15 — ND_BIAS-
ND_HALL+_P 16 — ND_HALL+
NT_SHOT_P 17 — XNS_SW
NS_GND 18
F_MR_B_P 19 — F_MR_B
F_MR_A_P 20 — F_MR_A
F_MR_VCC 21
TEMP_P 22 — LENS_TEMP_AD
TEMP_GND 23
ZOOM+_P 24 — ZOOM+
ZOOM-_P 25 — ZOOM-
FOCUS+_P 26 — FOCUS+
FOCUS-_P 27 — FOCUS-

R1306 0 — I_BIAS+
R1305 0 — I_BIAS-
R1304 0 — I_HALL+
R1302 0 — ND_HALL-
R1301 0 — ND_DRIVE-
R1303 0 — ND_BIAS-

IC1302
HALL AMP
IRIS DRIVE
IC1302
CXD9681TQ-FE2

IC1303
2.8V REG
IC1303
TK11128CSC

IC1301
FOCUS/ZOOM
MOTOR DRIVE
IC1301
UPD16877MA-6A5-E2

C1312 0.068u B
C1315 0.1u B
C1318 0.01u B
C1320 0.068u B
C1326 0.1u B
C1328 0.01u B
C1327 22u 4V TA A
L1302 xx
C1313 0.1u
C1316 0.01u B
C1317 0.01u B
C1319 0.1u
C1323 0.1u
C1321 0.1u
C1324 XX
C1325 XX
C1322 0.1u B
C1338 220
FB1301 0uH
C1301 0.1u
C1314 XX
R1328 10k
C1307 47u 10V TA B
L1301 10uH
C1306 0.1u

R1323 8200 ±0.5%
R1335 8200 ±0.5%
R1325 3300 ±0.5%
R1324 470k ±0.5%
R1329 180k ±0.5%
R1330 180k ±0.5%
R1331 0
R1332 3300 ±0.5%
R1334 470k ±0.5%
R1326 220k ±0.5%
R1333 220k ±0.5%
R1336 0
R1337 0

R1307 0
R1308 0
R1309 0
R1310 0
C1302 XX
C1303 XX
C1304 XX
C1305 XX

C1311 2200p
R1311 1k ±0.5%
R1316 22k ±0.5%
R1315 39k ±0.5%
R1317 22k ±0.5%
R1312 1k ±0.5%
C1308 2200p
R1318 39k ±0.5%
C1309 2200p
R1319 33k
R1313 1k ±0.5%
R1320 18k ±0.5%
R1314 1k ±0.5%
C1310 2200p
R1321 18k ±0.5%
R1322 33k ±0.5%

AD_ZM_MR_B
AD_ZM_MR_A
AD_FC_MR_B
AD_FC_MR_A
Z_MR_B
Z_MR_A
F_MR_B
F_MR_A

OPOUT3 OPIN3N DAC3OUT ZM_MR_B ZM_MR_A DAC2OUT OPIN2N OPOUT2 OPOUT1 OPIN1N DAC1OUT FC_MR_B FC_MR_A DAC0OUT OPIN0N OPOUT0

AVDD AVSS CREFIN VREF1 VREF2 AD_ND AD_IR AD_ZM_MR_B AD_ZM_MR_A AD_FC_MR_B AD_FC_MR_A TEST3 TEST2 VD CLK DVDD

ND_HALL HALL_AD CAM_VD

TEST0 TEST1 SCK CS SI SO XCLR ND_PWM ND_EN IR_EN ZM_PWM ZM_EN FC_PWM FC_EN DVSS

CAM_SCK CAM_CS CAM_SO CAM_SI IC2601_RST

VM1 A1_FA PGND A2_FB A3_ZA PGND A4_ZB VM4 IN1 EN1 IN2 EN2
VDD B1_FA PGND B2_FB VM2_3 B3_ZA PGND B4_ZB EN4 IN4 EN3 IN3

FOCUS- ZOOM- I_DRIVE+ ND_DRIVE- FC_PWM FC_EN ZM_PWM ZM_EN
FOCUS+ ZOOM+ I_DRIVE- ND_DRIVE+ ND_EN ND_PWM IR_EN IR_PWM

A_4.6V
A_2.8V
D_2.8V
REG_GND
MT_5V
MT_GND
SPCK
XNS_SW
LENS_TEMP_AD
IC2601_RST
ND_HALL
HALL_AD
CAM_VD
CAM_SCK
CAM_SO
CAM_SI
CAM_CS

23 (14/14)
17 (2/14) 17 (4/14) 17 (11/14)
22 (12/14)
21 (2/14) 21 (12/14)
6 (1/14) 6 (2/14) 6 (4/14) 6 (12/14)
7 (1/14) 7 (2/14) 7 (12/14)

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(4/14)

CAMERA/MPEG MOVIE/DIGITAL STILL/DV SIGNAL/AUDIO SIGNAL PROCESS (TI BLOCK)

XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with ▲mark,is not possible.

NO MARK:REC/PB MODE

IC2101

CAMERA PROCESS
MPEG MOVIE PROCESS
DIGITAL STILL PROCESS
DV SIGNAL PROCESS
AUDIO SIGNAL PROCESS

▲ IC2101

CSP(CHIP SIZE PACKAGE)IC

IC2103

MD56V62160E-10LAZ03B
W9864G6DB-7-ER20 (DCR-TRV33)
(DCR-TRV33E)

CSP(CHIP SIZE PACKAGE)IC

IC2103

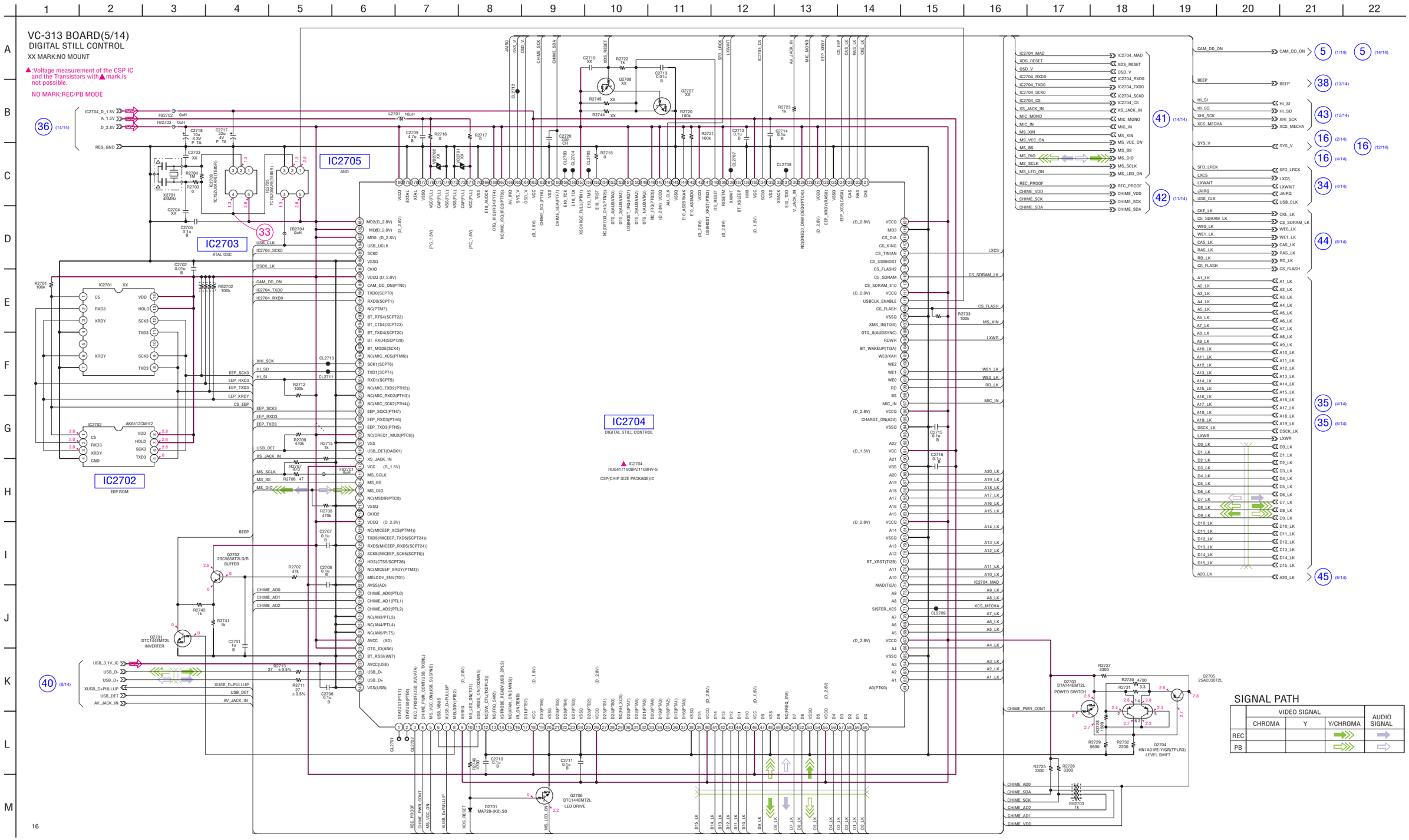
64MBIT SDRAM

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	→	→	→	→
PB	→	→	→	→

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.



For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(6/14)

SD RAM,FLASH MEMORY(F/S BLOCK)

XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with▲mark,is not possible.

NO MARK:REC/PB MODE

IC2801

16MBIT SDRAM

IC2801
MSM56V16160F-10T3

2.8	1		50	2.6	D15_LK
D0_LK	2.4	2		49	2.6	D14_LK
D1_LK	2.4	3		48	
		4		47	
D2_LK	2.4	5		46	2.4	D13_LK
D3_LK	2.4	6		45	2.5	D12_LK
	2.8	7		44	2.8	
D4_LK	2.4	8		43	2.4	D11_LK
D5_LK	2.4	9		42	2.3	D10_LK
		10		41	
D6_LK	2.4	11		40	2.3	D9_LK
D7_LK	2.3	12		39	2.4	D8_LK
	2.8	13		38	2.8	
WE0_LK	2.7	14		37	
LXWR	2.8	15		36	2.7	WE1_LK
CAS_LK	2.7	16		35	1.3	DSCK_LK
RAS_LK	2.8	17		34	2.8	CKE_LK
CS_SDRAM_LK	2.7	18		33	
A13_LK	0.6	19		32	0.5	A10_LK
A11_LK	2.7	20		31	0.5	A9_LK
A1_LK	0.4	21		30	0.5	A8_LK
A2_LK	0.4	22		29	0.5	A7_LK
A3_LK	0.4	23		28	0.5	A6_LK
A4_LK	0.6	24		27	0.6	A5_LK
	2.8	25		26	

C2801 0.01u B

C2804 0.01u B

35 (4/14)

35 (5/14)

45 (5/14)

IC2803
MB85331BE90PBT-36-ER
CSP(CHIP SIZE PACKAGE)IC

A16_LK	1	A15	A16	48	A17_LK
A15_LK	2	A14	BYTE	47	
A14_LK	3	A13	VSS	46	
A13_LK	4	A12	DQ15/A1	45	D15_LK
A12_LK	5	A11	DQ7	44	D7_LK
A11_LK	6	A10	DQ14	43	D14_LK
A10_LK	7	A9	DQ6	42	D6_LK
A9_LK	8	A8	DQ13	41	D13_LK
A20_LK	9	A19	DQ5	40	D5_LK
	10	NC	DQ12	39	D12_LK
WE1_LK	11	XWE	DQ4	38	D4_LK
XSYS_RST	12	XRESET	VCC	37	
	13	NC	DQ11	36	D11_LK
	14	NC	DQ3	35	D3_LK
	15	RY/XBY	DQ10	34	D10_LK
A19_LK	16	A18	DQ2	33	D2_LK
A18_LK	17	A17	DQ9	32	D9_LK
A8_LK	18	A7	DQ1	31	D1_LK
A7_LK	19	A6	DQ8	30	D8_LK
A6_LK	20	A5	DQ0	29	D0_LK
A5_LK	21	A4	OE	28	RD_LK
A4_LK	22	A3	VSS	27	
A3_LK	23	A2	CE	26	CS_FLASH
A2_LK	24	A1	A0	25	A1_LK

C2806 0.01u B

IC2803

16MBIT FLASH MEMORY

R2803 0

C2807 XX

FB2802 XX

FB2801 0uH

C2805 10u 6.3v

D.2.8V

REG-GND

46 (14/14)

IC2802
XX

D0_LK	1	Vcc	Vss	54	
	2	DQ0	DQ15	53	D15_LK
D1_LK	3	Vccq	Vssq	52	
D2_LK	4	DQ1	DQ14	51	D14_LK
	5	DQ2	DQ13	50	D13_LK
D3_LK	6	Vssq	Vccq	49	
D4_LK	7	DQ3	DQ12	48	D12_LK
	8	DQ4	DQ11	47	D11_LK
D5_LK	9	Vccq	Vssq	46	
D6_LK	10	DQ5	DQ10	45	D10_LK
	11	DQ6	DQ9	44	D9_LK
D7_LK	12	Vssq	Vccq	43	
	13	DQ7	DQ8	42	D8_LK
WE0_LK	14	Vcc	Vss	41	
LXWR	15	DQML	NC	40	
CAS_LK	16	XWE	DQMU	39	WE1_LK
RAS_LK	17	XCAS	CLK	38	DSCK_LK
CS_SDRAM_LK	18	XRAS	CKE	37	CKE_LK
A14_LK	19	XCS	NC	36	A13_LK
A13_LK	20	A13	A11	35	A12_LK
A11_LK	21	A12	A9	34	A10_LK
A1_LK	22	A10	A8	33	A9_LK
A2_LK	23	A0	A7	32	A8_LK
A3_LK	24	A1	A6	31	A7_LK
A4_LK	25	A2	A5	30	A6_LK
	26	A3	A4	29	A5_LK
	27	Vcc	Vss	28	

R2801 XX

R2802 XX

C2802 XX

C2803 XX

CS_FLASH
RD_LK
CKE_LK
WE1_LK
WE0_LK
CAS_LK
RAS_LK
CS_SDRAM_LK

44 (5/14)

XSYS_RST

14 (2/14) 14 (4/14) 14 (7/14) 14 (12/14) 14 (14/14)

16

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(7/14)
DV/RF SIGNAL PROCESS
XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with▲mark,is not possible.

IC2301
DV SIGNAL PROCESS,RF SIGNAL PROCESS

▲IC2301
UPD15002FC-DN2
CSP(CHIP SIZE PACKAGE)IC

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	▶	▶▶	▶▶▶	▶
PB	▷	▷▷	▷▷▷	▷

SIGNAL PATH

	REC	REC/PB	PB
Ref.signal	▶		▷

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

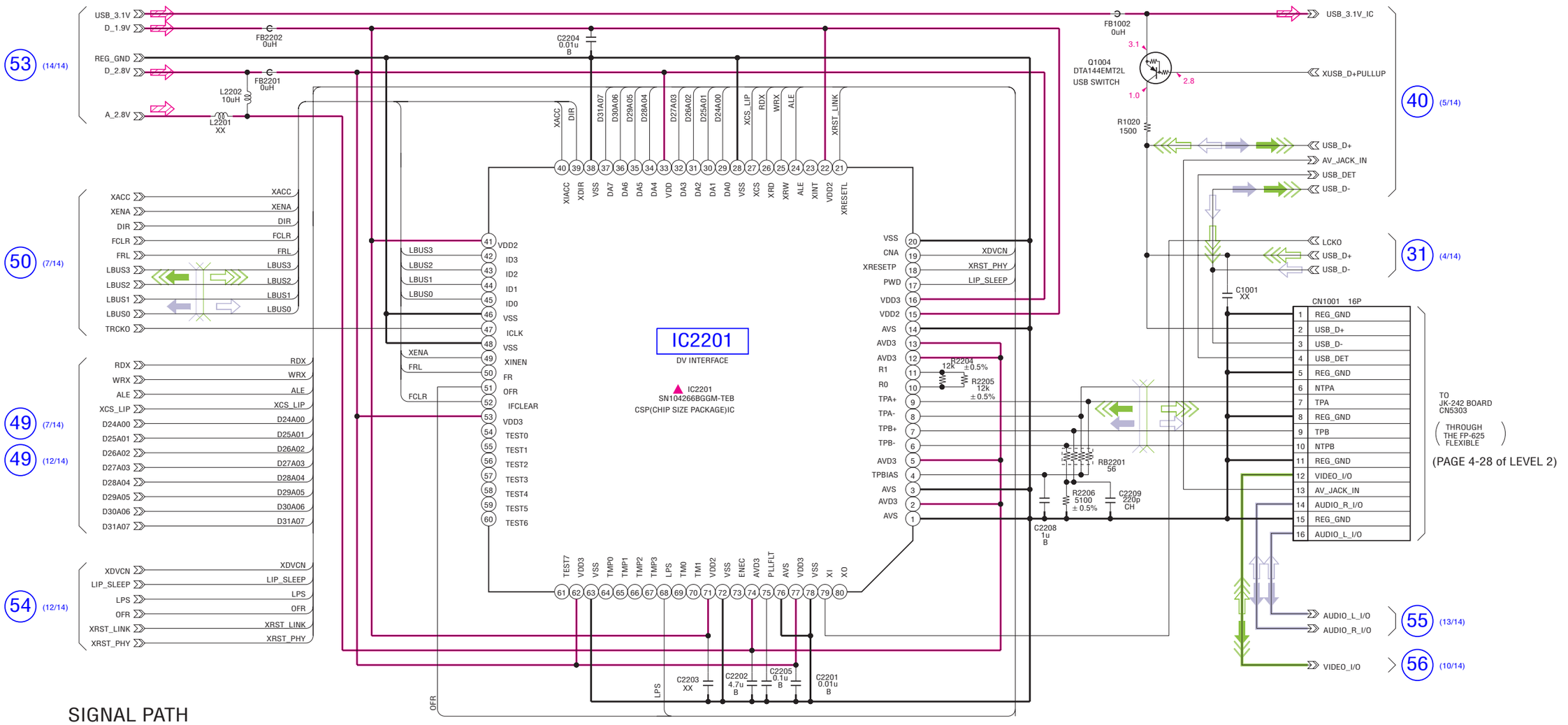
VC-313 BOARD(8/14)

DV INTERFACE(LIP BLOCK)

XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with ▲mark,is not possible.

NO MARK:REC/PB MODE



SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			⇒	⇒
PB			⇨	⇨

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(9/14)

HEAD AMP,PLL,A/D-D/A CONVERTER(RF BLOCK)

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

IC1801
HEAD AMP,PLL
A/D-D/A CONVERTER
IC1801
CXA3619R-T4

CN1801 10P
MECHANISM DECK (Z100)
VIDEO HEAD
ODD
EVEN

SIGNAL PATH

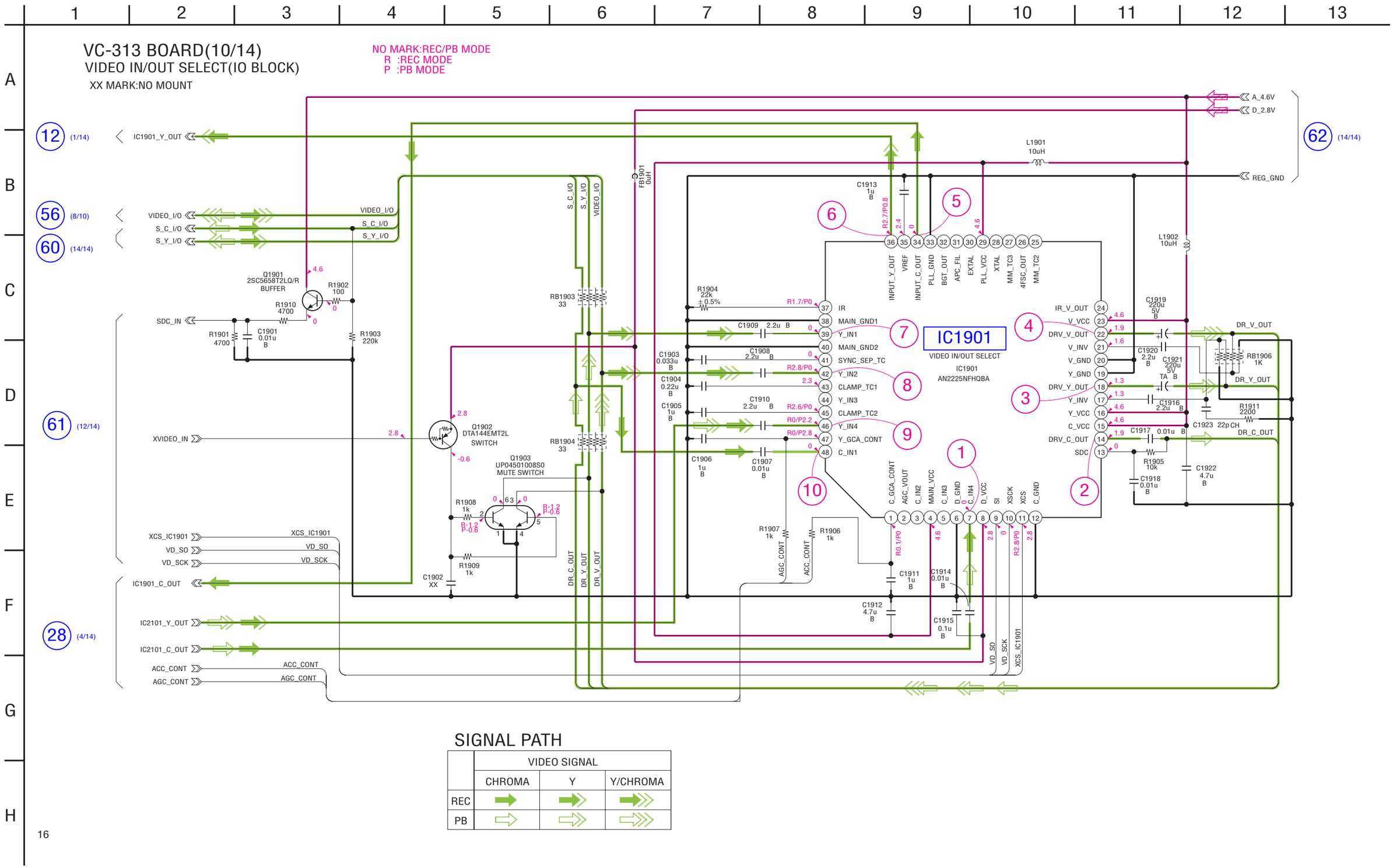
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB				

SIGNAL PATH

	REC	REC/PB	PB
Ref.signal			

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

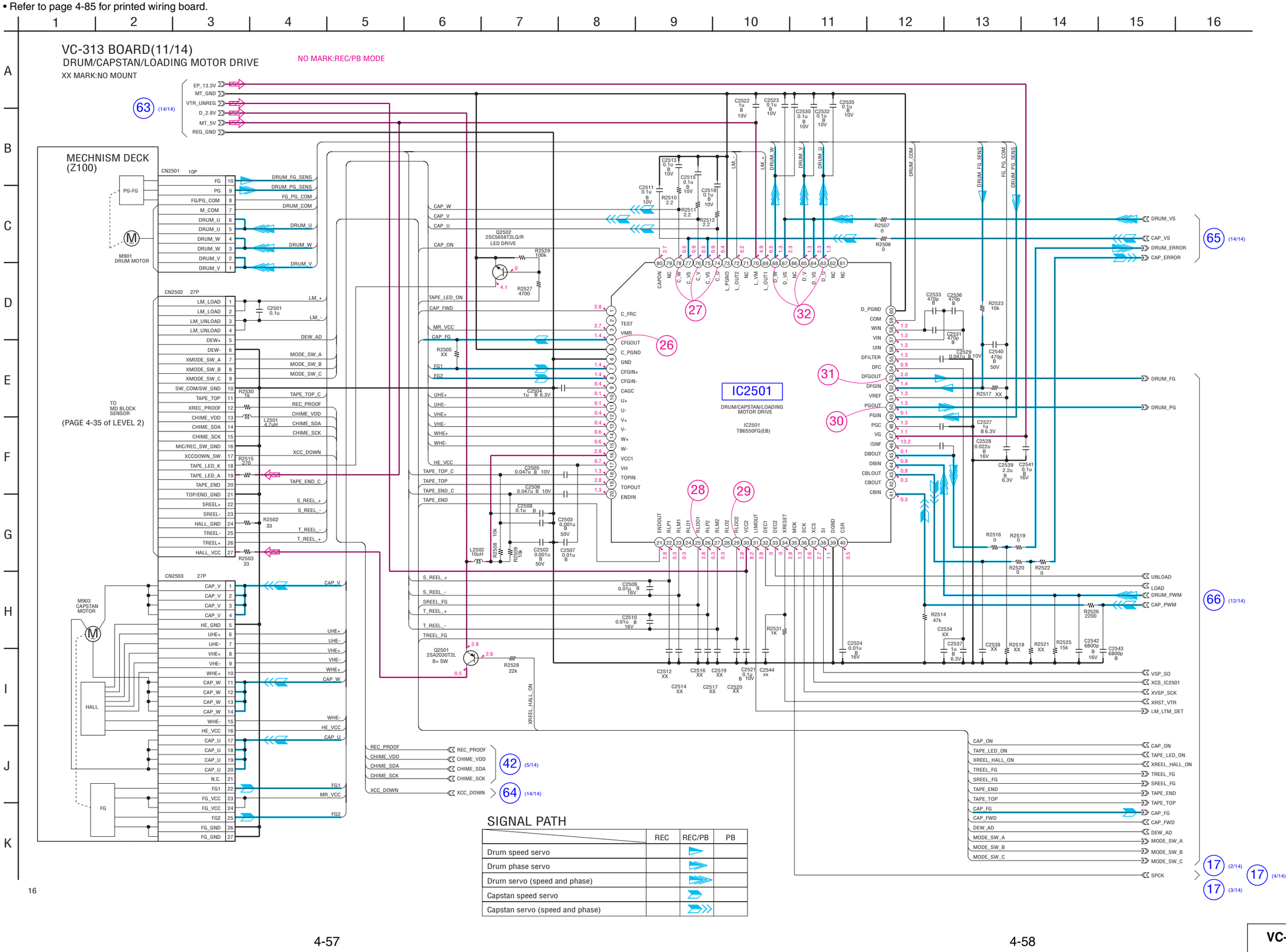


SIGNAL PATH

	VIDEO SIGNAL		
	CHROMA	Y	Y/CHROMA
REC	➡	➡	➡
PB	⇨	⇨	⇨

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.



For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(12/14)

CAMERA/MECHA CONTROL

XX MARK:NO MOUNT

▲:Voltage measurement of the CSP IC and the Transistors with▲mark,is not possible.

NO MARK:REC/PB MODE

IC2601

CAMERA CONTROL MECHA CONTROL

▲ IC2601 MB91194ALGA-G-135-ER

CSP(CHIP SIZE PACKAGE)IC

IC2602 EEPROM

SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶	
Drum servo (speed and phase)		▶	
Capstan speed servo		▶	
Capstan servo (speed and phase)		▶»	

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(13/14)

AUDIO IN/OUT SELECTOR(AU BLOCK)

XX MARK:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

SIGNAL PATH

	AUDIO SIGNAL
REC	➡
PB	⇨

IC2901
AUDIO AD/DA CONVERTER
IC2901 PCM3008TG/2K

IC3001
AUDIO IN/OUT SELECTOR
IC3001 LA74207W-TBM-E

Q3001 2SD1834-T100 B+ SWITCH

Q3004 DTA114TMT2L

Q3005 RN1910FE(TPLR3)

Q3006 RN2910FE(TPLR3) BUFFER

Q3004,3005 POWER MUTE

Q3007 DTC144EMT2L AUDIO OUT MUTE

Q3002 XX

Q3003 RN1910FE(TPLR3) MUTE SW

RB3001 47

AU_4.6V, VTR_UNREG, AU_2.8V, REG_GND, BEEP_IN, SFD_BCK, SFD_FCK, SFD_LRCK, DATA_FROM_SFD, DATA_TO_SFD

70 (14/14)

30 (4/14)

XPWDA, XPWAD, DEM1, DEM0, VSP_SO, XVSP_SCK, XCS_AU, XAUDIO_IN

69 (12/14)

BEEP

38 (5/14)

AUDIO_L_I/O, AUDIO_R_I/O

55 (8/14)

MIC_L, MIC_R, HP_L_OUT, HP_R_OUT, SP+, SP-

71 (14/14)

For Schematic Diagram

• Refer to page 4-85 for printed wiring board.

VC-313 BOARD(14/14)
CONNECTOR(CN BLOCK)
XX MARK:NO MOUNT

NO MARK:REC/PB MODE

SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	▶	▶	▶	▶
PB	▷	▷	▷	▷

SIGNAL PATH

	REC	REC/PB	PB
Drum servo (speed and phase)		▶	
Capstan servo (speed and phase)		▶	

FP-630
FLEXIBLE

CN201 10P

REG_GND	10	
MS_VCC	9	
MS_SCLK	8	
N.C.	7	
MS_XIN	6	
N.C.	5	
MS_DIO	4	
MS_VCC	3	
MS_BS	2	
REG_GND	1	

MEMORY STICK CONNECTOR

8P

8	REG_GND	
7	MS_VCC	
6	MS_SCLK	
5	MS_INSERT	
4	MS_DIO	
3	MS_VCC	
2	MS_BS	
1	GND	

CN1006 8P

REG_GND	8	
MS_VCC	7	
MS_SCLK	6	
MS_INSERT	5	
MS_DIO	4	
MS_VCC	3	
MS_BS	2	
GND	1	

FP-630 FLEXIBLE is replaced as a block.
So that this PRINTED WIRING BOARD is omitted.

IC1002
TK11131CSCL-G
3.1V REG

C1008 0.1u B
C1010 0.01u B
C1009 0.22u B
FB1001 0uH

CN1003 12P

XVTR_MODE_SW	12	
REG_GND	11	
XPHOTO_STB_SW	10	
XCAM_STBY_SW	9	
XS/S_SW	8	
XEJECT_SW	7	
D_2.8V	6	
ZOOM_AD	5	
REG_GND	4	
KEY_AD0	3	
XPHOTO_FREEZE	2	
N.C.	1	

TO CONTROL SWITCH BLOCK FK-CX4000 (PAGE 4-29 of LEVEL 2)

D1004 UDZSTE-178

D1003 MAZW082H0LS0

CN1004 16P

FRRV	1	
RF_MON	2	
RF_IN/LANC_JACK_IN	3	
SWP	4	
PANEL_COM	5	
GND	6	
H_START	7	
GND	8	
PANEL_VG	9	
GND	10	
EVF_VCO	11	
GND	12	
EVF_VG	13	
EXT_DA	14	
LANC_SIG	15	
N.C.	16	

CPC (FOR ADJUST)

CN1002 100P B TO B

S_C_I/O	100	S_C_I/O
S_Y_I/O	99	S_Y_I/O
XS_JACK_IN	98	XS_JACK_IN
HP_JACK_IN	97	HP_JACK_IN
HP_L_OUT	96	HP_L_OUT
HP_R_OUT	95	HP_R_OUT
MIC_IN	94	MIC_IN
MIC_MONO	93	MIC_MONO
	92	REG_GND
MIC_L	91	MIC_L
ZOOM_MIC_CONT	90	ZOOM_MIC_CONT
	89	REG_GND
MIC_R	88	MIC_R
PITCH_AD	87	PITCH_AD
VST_C_RESET	86	VST_C_RESET
YAW_AD	85	YAW_AD
PANEL_R	84	PANEL_R
	83	REG_GND
PANEL_G	82	PANEL_G
P_SIG	81	PSIG
PANEL_B	80	PANEL_B
PANEL_VG	79	PANEL_VG
	78	REG_GND
PANEL_VD	77	PANEL_XVD
XHD_OUT	76	XHD_OUT
XCS_LCD	75	XCS_LCD
PANEL_HD	74	PANEL_XHD
EVF_VD	73	EVF_XVD
XCS_EVF	72	XCS_EVF
EVF_HD	71	EVF_XHD
VD_SO	70	VD_SO
EVF_VG	69	G
VD_SCK	68	VD_SCK
XRST_VTR	67	XRST_VTR
VCO	66	VCO
EVF_G	65	EVF_G
XSYS_RST	64	XSYS_RST
EVF_R	63	EVF_R
EXT_STROBO	62	EXT_STROBO
EVF_B	61	EVF_B
OSD_V	60	OSD_V
XCC_DOWN	59	XCC_DOWN
XPHOTO_STBY_SW	58	XPHOTO_STBY_SW
XPHOTO_FREEZE	57	XPHOTO_FREEZE
XS/S_SW	56	XS/S_SW
XCAM_MODE_SW	55	XCAM_MODE_SW
XVTR_MODE_SW	54	XVTR_MODE_SW
XEJECT_SW	53	XEJECT_SW
KEY_AD0	52	KEY_AD0
IC2704_CS	51	XCS_IC2704
IC2704_TXD0	50	IC2704_SI
IC2704_RXD0	49	IC2704_SO
IC2704_SCK0	48	IC2704_SCK
LINEOUT_V	47	LINE_OUT_V
MS_LED_ON	46	MS_LED_ON
XDS_RESET	45	XDS_RESET
IC2704_MAD	44	IC2704_MAD
SP-	43	SP-
SP+	42	SP+
	41	REG_GND
	40	REG_GND
	39	REG_GND
	38	REG_GND
	37	REG_GND
	36	REG_GND
	35	REG_GND
	34	REG_GND
EP_13.3V	33	EP_13.3V
CAM_15V	32	CAM_15V
CAM_-7.5V	31	CAM_-7.5V
AU_4.6V	30	AU_4.6V
A_4.75V	29	A_4.75V
RP_4.75V	28	RP_4.75V
A_4.75V	27	A_4.75V
AU_2.8V	26	AU_2.8V
RP_2.8V	25	RP_2.8V
D_2.8V	24	D_2.8V
A_2.8V	23	A_2.8V
D_2.8V	22	D_2.8V
A_2.8V	21	A_2.8V
D_2.8V	20	D_2.8V
MT_GND	19	MT_GND
CAM_DD_ON	18	CAM_DD_ON
MT_GND	17	MT_GND
CAP_VS	16	CAP_VS
CAP_ERROR	15	CAP_ERROR
CAP_VS	14	CAP_VS
DRUM_ERROR	13	DRUM_ERROR
DRUM_VS	12	DRUM_VS
MT_5V	11	MT_5V
DRUM_VS	10	DRUM_VS
MT_5V	9	MT_5V
D_1.9V	8	D_1.9V
D_1.5V_IC	7	D_1.5V_IC
USB_3.1V	6	USB_3.1V
D_1.5V_IC	5	D_1.5V_IC
A_1.5V	4	A_1.5V
VTR_UNREG	3	VTR_UNREG
A_1.5V	2	A_1.5V
VTR_UNREG	1	VTR_UNREG

TO VA-118 BOARD(3/5) CN4004 (PAGE 4-16 of LEVEL 2)

L1001 4.7uH
L1002 4.7uH
C1002 22u 6.3V TA A
C1011 47u 4V

COVER

4-3. PRINTED WIRING BOARDS

Link

- VC-313 BOARD (SIDE A)
- VC-313 BOARD (SIDE B)
- COMMON NOTE FOR PRINTED WIRING BOARDS
- WAVEFORMS
- MOUNTED PARTS LOCATION

COVER

4-3. PRINTED WIRING BOARDS

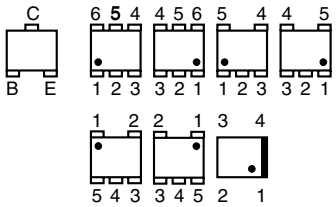
THIS NOTE IS COMMON FOR WIRING BOARDS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

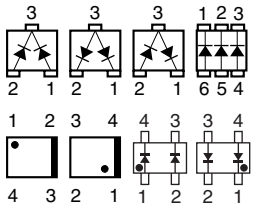
- : Uses unleaded solder.
- : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



BOARD INFORMATION

board name	parts location (shown on page)	waveform (shown on page)	pattern		CSP IC
			number of layers	layers not shown	
CD-431	4-93	4-89	6	2 to 5	–
LB-085	4-93	–	6	2 to 5	–
FP-626 FLEXIBLE	–	–	1	–	–
VA-118	4-93	4-89	6	2 to 5	–
CK-129	4-94	–	6	2 to 5	–
PD-188	4-94	4-90	6	2 to 5	–
JK-242	4-94	–	6	2 to 5	–
MA-421	4-94	–	6	2 to 5	–
VC-313	4-95	4-91,4-92	8	2 to 7	IC1601, 2101, 2103, 2201, 2301, 2601, 2704, 2803

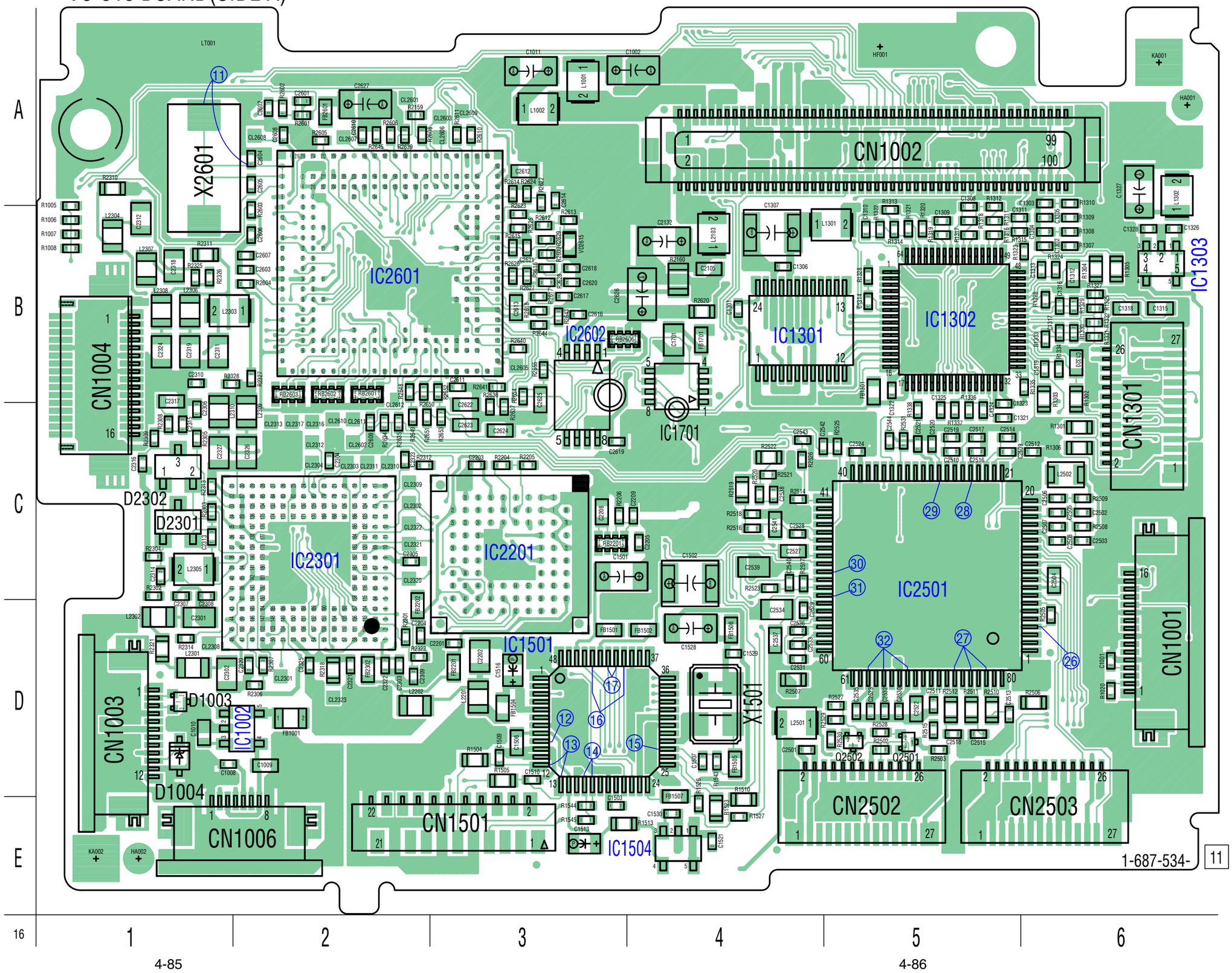
4-3. PRINTED WIRING BOARDS

VC-313 (A/V CONV., TIMING GEN, CAMERA PROCESS, HALL AMP, IRIS DRIVE, CAMERA/MPEG MOVIE/DIGITAL STILL/DV SIGNAL/AUDIO SIGNAL PROCESS, DIGITAL STILL CONTROL, SD RAM, FLASH MEMORY, DV/RF SIGNAL PROCESS, DV INTERFACE, HEAD AMP, PLL, A/D-D/A CONVERTER, VIDEO IN/OUT SELECT, DRUM/CAPSTAN/LOADING MOTOR DRIVE, CAMERA/MECHA CONTROL, AUDIO IN/OUT SELECT, CONNECTOR) PRINTED WIRING BOARD

• Refer to page 4-65 for common note for printed wiring board.

• : Uses unleaded solder.

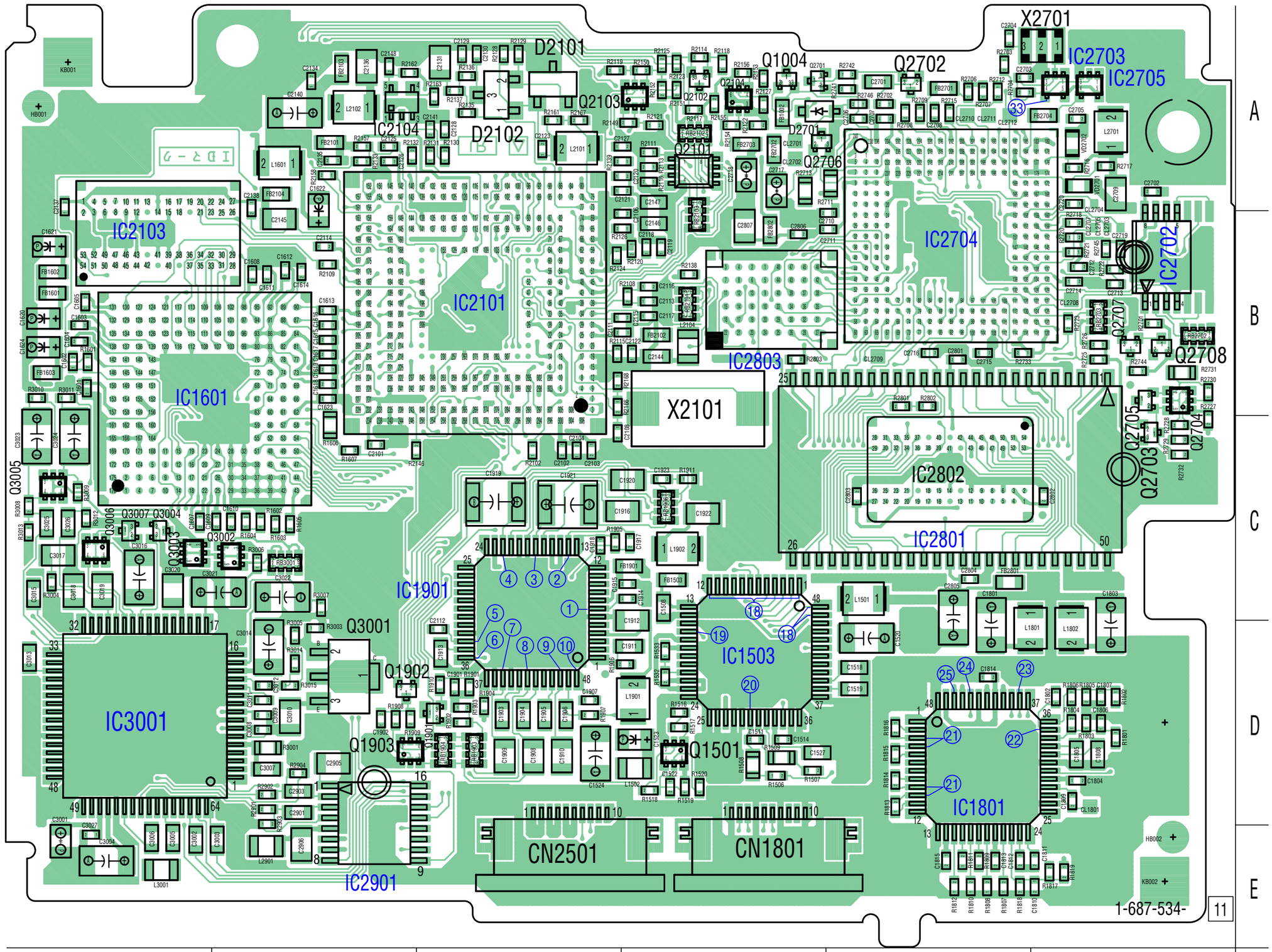
VC-313 BOARD(SIDE A)



• Refer to page 4-65 for common note for printed wiring board.

• : Uses unleaded solder.

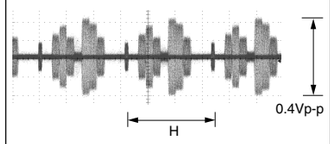
VC-313 BOARD(SIDE B)



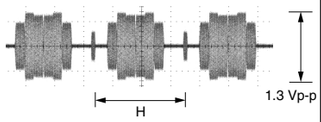
4-4. WAVEFORMS

VC-313 BOARD

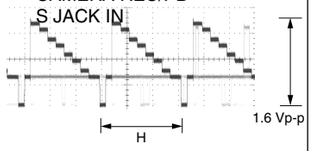
1 IC1901 ⑦
CAMERA REC



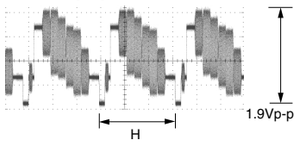
2 IC1901 ⑭
CAMERA REC / PB
S JACK IN



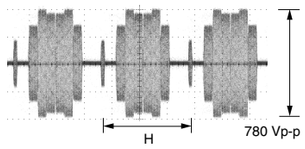
3 IC1901 ⑱
CAMERA REC/PB
S JACK IN



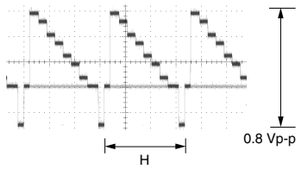
4 IC1901 ㉒
CAMERA REC/PB
AV JACK IN



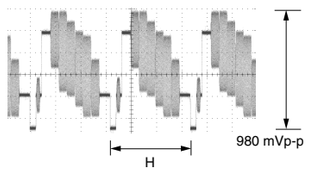
5 IC1901 ㉞
LINE REC(S-VIDEO)



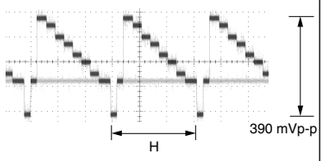
6 IC1901 ㊱
LINE REC(S-VIDEO)



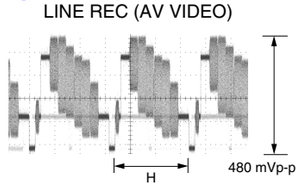
6 IC1901 ㊱
LINE REC(AV VIDEO)



7 IC1901 ㊴
LINE REC (S-VIDEO)

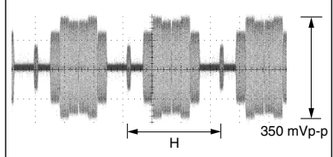


8 IC1901 ㊷
LINE REC (AV VIDEO)

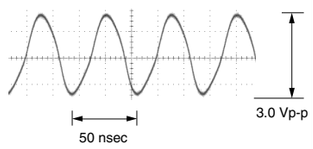


9 IC1901 ㊻
CAMERA REC

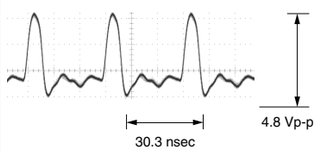
10 IC1901 ㊽
LINE REC (S-VIDEO)



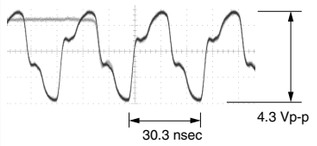
11 X2601 (C2604)



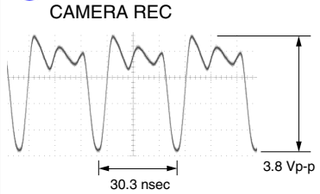
12 IC1501 ⑨
CAMERA REC



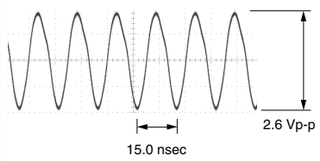
13 IC1501 ⑫,⑬
CAMERA REC



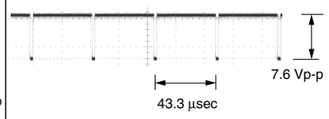
14 IC1501 ⑯,⑰
CAMERA REC



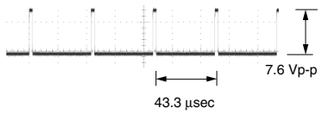
15 IC1501 ㉗
CAMERA REC



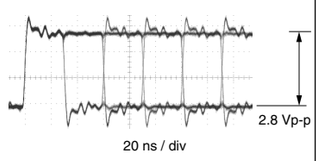
16 IC1501 ㊵,㊹
CAMERA REC



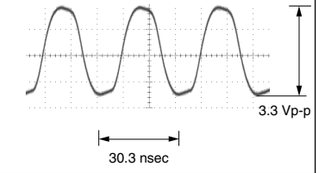
17 IC1501 ㊶,㊷
CAMERA REC



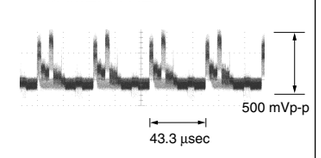
18 IC1503 ㊼,㊽,①-⑫
CAMERA REC



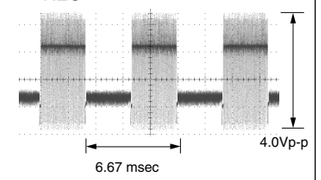
19 IC1503 ⑯
CAMERA REC



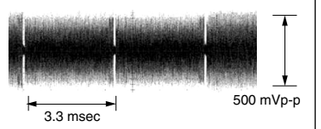
20 IC1503 ㉚
CAMERA REC



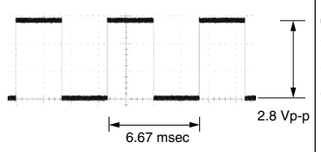
21 IC1801 ③,④,⑨,⑩
REC



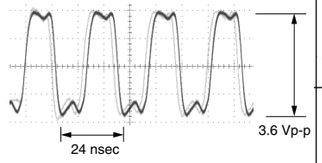
22 IC1801 ㉟
PB



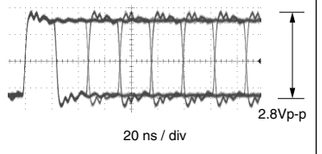
23 IC1801 ㊳
REC/PB



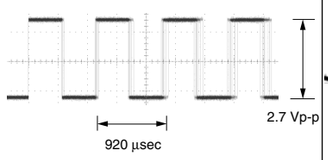
24 IC1801 ㊹
REC



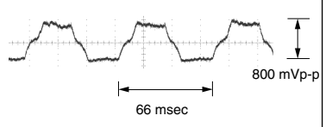
25 IC1801 ㊻
REC



26 IC2501 ④
REC/PB



27 IC2501 ㉔,㉖,㉘
REC/PB



28 IC2501 ㉕
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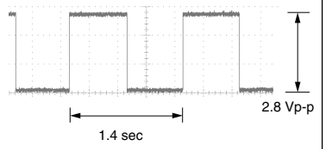

29 IC2501 ㉙
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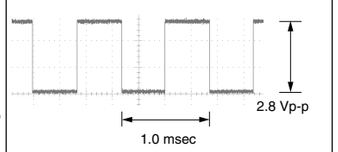

30 IC2501 ㊿
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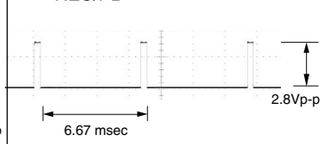

31 IC2501 ㊸
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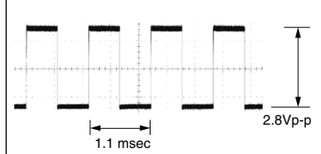
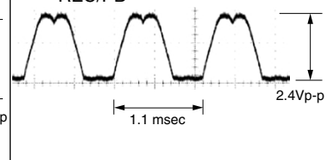
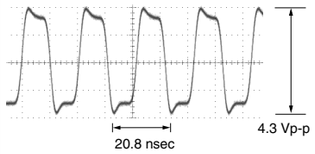


32 IC2501 ㊸,㊺,㊽
REC/PB



33 IC2703 ④



4-5. MOUNTED PARTS LOCATION

no mark : side A
* mark : side B

VC-313 BOARD

C1001 D-6
C1002 A-3
C1008 D-1
C1009 D-2
C1010 D-1
C1011 A-3
C1301 B-4
C1302 B-6
C1303 A-6
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C1305 B-6
C1306 B-4
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C1316 B-6
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C1319 B-6
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C1326 B-6
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C1502 C-4
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C1506 D-3
C1507 D-4
* C1508 C-3
C1509 D-3
C1510 D-3
* C1511 D-3
C1513 E-3
* C1514 D-3
C1516 D-3
* C1518 D-2
* C1519 D-2
* C1520 D-2
C1521 E-4
* C1522 D-3
* C1523 D-3
* C1524 D-4
* C1527 D-2
C1528 D-4
C1529 D-4
C1530 E-4
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R2512 D-5
R2514 C-4
R2515 D-5
R2516 C-4
R2517 C-4
R2518 C-4
R2519 C-4
R2520 C-4
R2521 C-4
R2522 C-4
R2523 C-4
R2525 C-5
R2526 C-4
R2527 D-5
R2528 D-5
R2529 D-5
R2530 D-5
R2531 C-5
R2601 A-2
R2602 A-2
R2603 B-2
R2604 B-2
R2605 A-2
R2606 A-2
R2608 A-2
R2609 B-3
R2610 A-3
R2611 A-3
R2612 B-3
R2613 B-3
R2614 A-3
R2615 B-3
R2616 B-3
R2617 B-3
R2618 B-3
R2620 B-4
R2622 A-3
R2623 B-3
R2624 A-3
R2625 B-3
R2626 B-3
R2627 B-3
R2628 B-3
R2629 B-3
R2634 C-2
R2635 C-2
R2636 C-3
R2637 C-3
R2639 A-2
R2640 B-3
R2641 B-3
R2643 B-3
R2644 B-3
R2645 A-2
R2648 B-2
R2649 C-2
R2650 B-2
R2651 C-2
R2652 B-3
R2653 C-3
R2654 C-3
R2655 B-3
* R2701 B-1
* R2702 A-2
* R2703 A-2
* R2704 A-2
* R2706 A-2
* R2707 A-2
* R2708 A-2
* R2709 A-2
* R2711 A-2
* R2712 A-2
* R2713 A-3
* R2715 A-2
* R2716 A-1
* R2717 A-1
* R2718 B-1
* R2720 B-1
* R2721 B-1
* R2722 B-1
* R2723 B-1
* R2725 B-1
* R2726 B-1
* R2727 C-1
* R2728 C-1
* R2729 C-1
* R2730 B-1
* R2731 B-1
* R2732 C-1
* R2733 B-2
* R2741 A-2
* R2742 A-2
* R2744 B-1
* R2745 B-1
* R2746 A-2
* R2801 B-2
* R2802 B-2
* R2803 B-3
* R2901 D-5
* R2902 D-5
* R2903 E-5
* R2904 D-5
* R3001 D-5
* R3003 D-5
* R3004 C-6
* R3005 D-5
* R3006 C-5
* R3007 C-5
* R3008 C-6
* R3009 C-6
* R3010 B-6

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4-3. PRINTED WIRING BOARDS

no mark : side A
* mark : side B

VC-313 BOARD

* R3011 B-6
* R3012 C-6
* R3013 C-6
* R3014 D-5
* R3015 D-5

* RB1903 D-4
* RB1904 D-4
* RB1906 C-3
* RB2101 B-3
* RB2102 A-3
* RB2103 B-3
RB2201 C-3
RB2601 B-2
RB2602 B-2
RB2603 B-2
RB2606 B-3
* RB2702 B-1
* RB2703 B-1
* RB3001 C-5

VD2615 B-3

X1501 D-4
* X2101 B-3
X2601 A-1
* X2701 A-1

COVER

SECTION 5
REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			
	A-7016-142-A	VC-313 BOARD, COMPLETE (SERVICE)(TRV33)			
		**********			
	A-7016-330-A	VC-313 BOARD, COMPLETE (SERVICE)(TRV33E)			
		**********			
		< CAPACITOR >			
C1002	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C1008	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1009	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1010	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1011	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C1301	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1306	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1307	1-137-934-91	TANTAL. CHIP	47uF	20%	10V
C1308	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C1309	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C1310	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C1311	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C1312	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C1313	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1316	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1317	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1319	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1320	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C1321	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1322	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1323	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1326	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1327	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C1328	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1501	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1502	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V
C1503	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1506	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1507	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1508	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1513	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C1514	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1516	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1518	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1519	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1520	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C1521	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1522	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1523	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1524	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1527	1-165-908-91	CERAMIC CHIP	1uF	10%	10V
C1528	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1529	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1530	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1601	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1603	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1604	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1605	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1607	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1608	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1609	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1610	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1611	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1612	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1617	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1618	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1619	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1620	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1621	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1622	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1623	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1624	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1801	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1802	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1803	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1804	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1805	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C1806	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1807	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1808	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C1809	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1810	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1811	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1812	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1813	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1814	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1815	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1901	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1903	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1904	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C1905	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1906	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1907	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			
C1908	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1909	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1910	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1911	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1912	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1913	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C1914	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1915	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1916	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1917	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1918	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1919	1-100-609-11	TANTAL. CHIP	220uF	20%	5V
C1920	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1921	1-100-609-11	TANTAL. CHIP	220uF	20%	5V
C1922	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1923	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C2101	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2103	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2104	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2105	1-165-908-91	CERAMIC CHIP	1uF	10%	10V
C2106	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2111	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2113	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2114	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2115	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2116	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2117	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2118	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2119	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2120	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2121	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2122	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2126	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2127	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2132	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2134	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2135	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2136	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2137	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2138	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2140	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2144	1-165-908-91	CERAMIC CHIP	1uF	10%	10V
C2145	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2201	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2202	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2204	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2205	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2208	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2209	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C2301	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2302	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2303	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2304	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2306	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2307	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2308	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2310	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C2311	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2312	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2318	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2319	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2320	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2321	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2322	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2324	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2325	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2501	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2502	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2503	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2504	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2505	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C2506	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C2507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2508	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2509	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2510	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2511	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2513	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2515	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2518	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2521	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2522	1-165-908-91	CERAMIC CHIP	1uF	10%	10V
C2523	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2524	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2527	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2528	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2529	1-119-923-81	CERAMIC CHIP	0.047uF	10%	10V
C2530	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2531	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C2532	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2533	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C2535	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2536	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C2537	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2539	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2540	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C2541	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2542	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C2543	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C2601	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2602	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2604	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C2605	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C2606	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2607	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2608	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2609	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2610	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2611	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2612	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2613	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2616	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2617	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2618	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2619	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2620	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2621	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C2625	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2701	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2702	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2705	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2706	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2707	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2708	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2709	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2710	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2711	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2712	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2713	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2714	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2715	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2716	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2717	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C2718	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C2720	1-164-858-11	CERAMIC CHIP	22PF	5%	50V
C2801	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2804	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2805	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2806	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2901	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2903	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2905	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2906	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3001	1-127-895-91	TANTAL. CHIP	22uF	20%	4V
C3002	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3003	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3004	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3005	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3006	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3007	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3008	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3009	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3010	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3011	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3012	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3013	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3014	1-135-158-21	TANTALUM CHIP	15uF	20%	4V
C3015	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3016	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3017	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3018	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C3019	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3020	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3021	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C3022	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C3023	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3024	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3025	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3026	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C3027	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

< CONNECTOR >

CN1001	1-766-346-21	CONNECTOR, FFC/FPC 16P
CN1002	1-774-598-41	CONNECTOR, BOARD TO BOARD 100P
CN1003	1-766-342-21	CONNECTOR, FFC/FPC 12P
CN1004	1-766-346-21	CONNECTOR, FFC/FPC 16P
CN1006	1-766-644-21	CONNECTOR, FFC/FPC 8P
CN1301	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P
CN1501	1-779-335-21	CONNECTOR, FFC/FPC 22P
CN1801	1-691-348-11	CONNECTOR, FFC/FPC (ZIF) 10P
CN2501	1-691-348-11	CONNECTOR, FFC/FPC (ZIF) 10P
CN2502	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P
CN2503	1-784-421-11	CONNECTOR, FFC/FPC (ZIF) 27P

< DIODE >

D1003	6-500-289-01	DIODE MAZW082H0LS0
D1004	8-719-056-85	DIODE UDZSTE-178.2B
D2701	8-719-421-27	DIODE MA728-(K8).S0

< FERRITE BEAD >

FB1001	1-500-445-21	FERRITE	0uH
FB1002	1-469-676-22	FERRITE	0uH
FB1301	1-469-676-22	FERRITE	0uH
FB1501	1-469-676-22	FERRITE	0uH
FB1502	1-469-676-22	FERRITE	0uH
FB1503	1-469-676-22	FERRITE	0uH
FB1504	1-469-676-22	FERRITE	0uH
FB1505	1-414-656-11	FERRITE	0uH
FB1506	1-469-676-22	FERRITE	0uH
FB1507	1-500-284-21	FERRITE	0uH
FB1601	1-500-235-22	FERRITE	0uH
FB1602	1-500-235-22	FERRITE	0uH
FB1603	1-469-676-22	FERRITE	0uH
FB1901	1-414-760-21	FERRITE	0uH
FB2101	1-414-760-21	FERRITE	0uH
FB2102	1-414-760-21	FERRITE	0uH
FB2103	1-414-760-21	FERRITE	0uH
FB2104	1-414-760-21	FERRITE	0uH
FB2201	1-414-760-21	FERRITE	0uH
FB2202	1-414-760-21	FERRITE	0uH
FB2302	1-414-760-21	FERRITE	0uH
FB2601	1-414-760-21	FERRITE	0uH
FB2701	1-500-284-21	FERRITE	0uH
FB2702	1-414-760-21	FERRITE	0uH
FB2703	1-414-760-21	FERRITE	0uH
FB2704	1-500-284-21	FERRITE	0uH
FB2801	1-414-760-21	FERRITE	0uH

< IC >

IC1002	6-703-227-01	IC TK11131CSCL-G
IC1301	8-759-637-96	IC uPD16877MA-6A5-E2
IC1302	6-701-987-01	IC CXD9681TQ-FE2
IC1303	6-704-149-01	IC TK11128CSCL-G
IC1501	8-752-417-71	IC CXD2477AR-T4
IC1503	6-701-756-01	IC AD80054JSTRL
IC1504	6-703-953-01	IC TK11134CSCL-G
IC1601	8-752-417-39	IC CXD3156GA-T6
IC1801	8-752-106-95	IC CXA3619R-T4
IC1901	6-701-555-01	IC AN2225NFHQBA
IC2101	6-703-335-01	IC TINIAN
IC2103	6-702-058-01	IC MD56V62160E-10LAZ03B
IC2201	6-700-553-01	IC SN104266BGGM-TEB
IC2301	6-703-315-01	IC uPD15002FC-DN2-E2-A
IC2501	6-701-926-01	IC TB6550FG(EB)

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Ref. No.	Part No.	Description
IC2601	6-803-025-01	IC MB91194ALGA-G-138-ER
IC2602	6-702-156-01	IC AK6510CM-E2
IC2702	6-702-168-01	IC AK6512CM-E2
IC2703	6-702-708-01	IC TC7SZU04AFE(TE85R)
IC2704	6-703-360-01	IC HD6417190BPZ110BHV-S
IC2705	6-702-924-01	IC TC7SZ00AFE(TE85R)
IC2801	6-703-830-01	IC MSM56V16160F-10T3
IC2803	6-802-900-01	IC MB85331BE90PBT-36-ER
IC2901	8-759-647-71	IC PCM3008TG/2K
IC3001	6-701-074-01	IC LA74207W-TBM-E
		< COIL >
L1001	1-469-524-91	INDUCTOR 4.7uH
L1002	1-469-524-91	INDUCTOR 4.7uH
L1301	1-469-525-91	INDUCTOR 10uH
L1501	1-469-525-91	INDUCTOR 10uH
L1502	1-469-570-21	INDUCTOR 10uH
L1601	1-469-525-91	INDUCTOR 10uH
L1801	1-469-525-91	INDUCTOR 10uH
L1802	1-469-525-91	INDUCTOR 10uH
L1901	1-469-525-91	INDUCTOR 10uH
L1902	1-469-525-91	INDUCTOR 10uH
L2102	1-469-525-91	INDUCTOR 10uH
L2103	1-469-525-91	INDUCTOR 10uH
L2104	1-469-570-21	INDUCTOR 10uH
L2202	1-469-570-21	INDUCTOR 10uH
L2301	1-469-570-21	INDUCTOR 10uH
L2302	1-469-570-21	INDUCTOR 10uH
L2303	1-469-525-91	INDUCTOR 10uH
L2304	1-469-570-21	INDUCTOR 10uH
L2306	1-469-570-21	INDUCTOR 10uH
L2307	1-469-570-21	INDUCTOR 10uH
L2308	1-469-570-21	INDUCTOR 10uH
L2501	1-469-524-91	INDUCTOR 4.7uH
L2502	1-414-771-91	INDUCTOR 10uH
L2701	1-414-754-11	INDUCTOR 10uH
L2901	1-469-570-21	INDUCTOR 10uH
L3001	1-469-570-21	INDUCTOR 10uH
		< TRANSISTOR >
Q1004	6-550-239-01	TRANSISTOR DTA144EMT2L
Q1501	8-759-054-48	TRANSISTOR UP04601008S0
Q1901	6-550-237-01	TRANSISTOR 2SC5658T2LQ/R
Q1902	6-550-239-01	TRANSISTOR UNR31A300LS0
Q1903	8-759-054-50	TRANSISTOR UP04501008S0
Q2101	6-550-383-01	TRANSISTOR HN4A71FK (TE85R)
Q2501	6-550-174-01	TRANSISTOR 2SA2030T2L
Q2502	6-550-237-01	TRANSISTOR 2SC5658T2LQ/R
Q2701	6-550-119-01	TRANSISTOR DTC144EMT2L
Q2702	6-550-237-01	TRANSISTOR 2SC5658T2LQ/R
Q2703	6-550-239-01	TRANSISTOR DTA144EMT2L
Q2704	8-729-053-54	TRANSISTOR HN1A01FE-Y/GR(TPLR3)
Q2706	6-550-234-01	TRANSISTOR UNR32A300LS0
Q3001	8-729-921-51	TRANSISTOR 2SD1834-T100
Q3003	8-729-054-52	TRANSISTOR RN1910FE(TPLR3)

Ref. No.	Part No.	Description			
Q3004	6-550-240-01	TRANSISTOR	DTA114TMT2L		
Q3005	8-729-054-52	TRANSISTOR	RN1910FE(TPLR3)		
Q3006	8-729-054-51	TRANSISTOR	RN2910FE(TPLR3)		
Q3007	6-550-119-01	TRANSISTOR	DTC144EMT2L		
		< RESISTOR >			
R1005	1-218-990-11	SHORT CHIP	0		
R1006	1-218-990-11	SHORT CHIP	0		
R1007	1-218-990-11	SHORT CHIP	0		
R1008	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1020	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R1301	1-216-864-11	METAL CHIP	0	5%	1/16W
R1302	1-216-864-11	METAL CHIP	0	5%	1/16W
R1303	1-216-864-11	METAL CHIP	0	5%	1/16W
R1304	1-216-864-11	METAL CHIP	0	5%	1/16W
R1305	1-216-864-11	METAL CHIP	0	5%	1/16W
R1306	1-216-864-11	METAL CHIP	0	5%	1/16W
R1307	1-218-990-11	SHORT CHIP	0		
R1308	1-218-990-11	SHORT CHIP	0		
R1309	1-218-990-11	SHORT CHIP	0		
R1310	1-218-990-11	SHORT CHIP	0		
R1311	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1312	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1313	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1314	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1315	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R1316	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1317	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1318	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R1319	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R1320	1-208-713-11	METAL CHIP	18K	0.5%	1/16W
R1321	1-208-713-11	METAL CHIP	18K	0.5%	1/16W
R1322	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R1323	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R1324	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R1325	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R1326	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R1327	1-208-699-11	METAL CHIP	4.7K	0.5%	1/16W
R1328	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1329	1-208-941-11	METAL CHIP	180K	0.5%	1/16W
R1330	1-208-941-11	METAL CHIP	180K	0.5%	1/16W
R1331	1-218-990-11	SHORT CHIP	0		
R1332	1-208-695-11	METAL CHIP	3.3K	0.5%	1/16W
R1333	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R1334	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R1335	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R1336	1-218-990-11	SHORT CHIP	0		
R1337	1-218-990-11	SHORT CHIP	0		
R1338	1-218-945-11	RES-CHIP	220	5%	1/16W
R1504	1-216-864-11	METAL CHIP	0	5%	1/16W
R1505	1-216-864-11	METAL CHIP	0	5%	1/16W
R1506	1-218-990-11	SHORT CHIP	0		
R1507	1-218-990-11	SHORT CHIP	0		
R1508	1-216-864-11	METAL CHIP	0	5%	1/16W
R1509	1-216-864-11	METAL CHIP	0	5%	1/16W
R1510	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			
R1513	1-216-864-11	METAL CHIP	0	5%	1/16W
R1516	1-218-947-11	RES-CHIP	330	5%	1/16W
R1517	1-218-947-11	RES-CHIP	330	5%	1/16W
R1518	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1519	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1520	1-218-949-11	RES-CHIP	470	5%	1/16W
R1523	1-216-864-11	METAL CHIP	0	5%	1/16W
R1526	1-218-943-11	RES-CHIP	150	5%	1/16W
R1527	1-218-933-11	RES-CHIP	22	5%	1/16W
R1532	1-218-990-11	SHORT CHIP	0		
R1543	1-218-945-11	RES-CHIP	220	5%	1/16W
R1544	1-208-637-11	RES-CHIP	12	5%	1/16W
R1545	1-208-637-11	RES-CHIP	12	5%	1/16W
R1601	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1602	1-218-990-11	SHORT CHIP	0 (TRV33E)		
R1603	1-218-990-11	SHORT CHIP	0 (TRV33)		
R1604	1-218-990-11	SHORT CHIP	0 (TRV33)		
R1605	1-218-990-11	SHORT CHIP	0 (TRV33E)		
R1606	1-216-864-11	METAL CHIP	0	5%	1/16W
R1607	1-218-990-11	SHORT CHIP	0		
R1803	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1804	1-218-969-11	RES-CHIP	22K	5%	1/16W
R1807	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1808	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R1810	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R1812	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1813	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R1814	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R1815	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R1816	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R1818	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1819	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1901	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1902	1-218-941-81	RES-CHIP	100	5%	1/16W
R1903	1-218-981-11	RES-CHIP	220K	5%	1/16W
R1904	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R1905	1-218-965-11	RES-CHIP	10K	5%	1/16W
R1906	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1907	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1908	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1909	1-218-953-11	RES-CHIP	1K	5%	1/16W
R1910	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R1911	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2102	1-218-990-11	SHORT CHIP	0		
R2108	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2109	1-218-990-11	SHORT CHIP	0		
R2111	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2113	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2114	1-218-990-11	SHORT CHIP	0		
R2115	1-218-966-11	RES-CHIP	12K	5%	1/16W
R2116	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2118	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2119	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2120	1-218-966-11	RES-CHIP	12K	5%	1/16W
R2121	1-218-948-11	METAL CHIP	390	0.5%	1/16W
R2122	1-218-944-11	RES-CHIP	180	5%	1/16W
R2124	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R2126	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R2127	1-218-944-11	RES-CHIP	180	5%	1/16W
R2129	1-218-977-11	RES-CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			
R2130	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2131	1-218-990-11	SHORT CHIP	0		
R2132	1-218-990-11	SHORT CHIP	0		
R2133	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2138	1-218-990-11	SHORT CHIP	0		
R2146	1-218-990-11	SHORT CHIP	0		
R2149	1-218-990-11	SHORT CHIP	0		
R2150	1-218-990-11	SHORT CHIP	0		
R2153	1-218-990-11	SHORT CHIP	0		
R2154	1-218-990-11	SHORT CHIP	0		
R2159	1-218-990-11	SHORT CHIP	0		
R2167	1-218-990-11	SHORT CHIP	0		
R2168	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2204	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R2205	1-208-709-11	METAL CHIP	12K	0.5%	1/16W
R2206	1-218-864-11	METAL CHIP	5.1K	0.5%	1/16W
R2301	1-218-990-11	SHORT CHIP	0		
R2302	1-218-990-11	SHORT CHIP	0		
R2306	1-218-990-11	SHORT CHIP	0		
R2310	1-216-864-11	METAL CHIP	0	5%	1/16W
R2311	1-216-864-11	METAL CHIP	0	5%	1/16W
R2312	1-218-990-11	SHORT CHIP	0		
R2313	1-218-990-11	SHORT CHIP	0		
R2314	1-218-990-11	SHORT CHIP	0		
R2318	1-216-864-11	METAL CHIP	0	5%	1/16W
R2325	1-218-990-11	SHORT CHIP	0		
R2502	1-218-935-11	RES-CHIP	33	5%	1/16W
R2503	1-218-935-11	RES-CHIP	33	5%	1/16W
R2506	1-216-864-11	METAL CHIP	0	5%	1/16W
R2507	1-216-864-11	METAL CHIP	0	5%	1/16W
R2508	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2509	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2510	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R2511	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R2512	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R2514	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2515	1-218-946-11	RES-CHIP	270	5%	1/16W
R2516	1-218-990-11	SHORT CHIP	0		
R2519	1-216-864-11	METAL CHIP	0	5%	1/16W
R2520	1-218-990-11	SHORT CHIP	0		
R2522	1-216-864-11	METAL CHIP	0	5%	1/16W
R2523	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2525	1-218-967-11	RES-CHIP	15K	5%	1/16W
R2526	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2527	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2528	1-218-969-11	RES-CHIP	22K	5%	1/16W
R2529	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2530	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2531	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2601	1-218-941-81	RES-CHIP	100	5%	1/16W
R2602	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2603	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2604	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2605	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2606	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2608	1-218-985-11	RES-CHIP	470K	5%	1/16W
R2609	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2610	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2611	1-218-985-11	RES-CHIP	470K	5%	1/16W
R2612	1-218-989-11	RES-CHIP	1M	5%	1/16W

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Ref. No.	Part No.	Description			
R2613	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2614	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2615	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2616	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2617	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2618	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2620	1-216-864-11	METAL CHIP	0	5%	1/16W
R2623	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2624	1-218-990-11	SHORT CHIP	0		
R2625	1-218-965-11	RES-CHIP	10K	5%	1/16W (TRV33E)
R2625	1-218-969-11	RES-CHIP	22K	5%	1/16W (TRV33)
R2626	1-218-990-11	SHORT CHIP	0 (TRV33)		
R2627	1-218-990-11	SHORT CHIP	0 (TRV33E)		
R2628	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2629	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2634	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2635	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2636	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2637	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2639	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2640	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R2641	1-218-970-11	METAL CHIP	27K	0.5%	1/16W
R2643	1-218-975-11	RES-CHIP	68K	5%	1/16W
R2644	1-218-981-11	RES-CHIP	220K	5%	1/16W
R2654	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2655	1-218-990-11	SHORT CHIP	0		
R2701	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2702	1-218-973-11	RES-CHIP	47K	5%	1/16W
R2703	1-218-990-11	SHORT CHIP	0		
R2704	1-218-989-11	RES-CHIP	1M	5%	1/16W
R2706	1-218-937-11	RES-CHIP	47	5%	1/16W
R2707	1-218-949-11	RES-CHIP	470	5%	1/16W
R2708	1-218-985-11	RES-CHIP	470K	5%	1/16W
R2709	1-218-985-11	RES-CHIP	470K	5%	1/16W
R2711	1-211-979-11	METAL CHIP	27	0.5%	1/10W
R2712	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2713	1-211-979-11	METAL CHIP	27	0.5%	1/10W
R2715	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2716	1-218-990-11	SHORT CHIP	0		
R2717	1-218-990-11	SHORT CHIP	0		
R2718	1-218-990-11	SHORT CHIP	0		
R2720	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2721	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2722	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2723	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2725	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R2726	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R2727	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R2728	1-218-955-11	RES-CHIP	1.5K	5%	1/16W
R2729	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R2730	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2731	1-216-791-11	METAL CHIP	3.3	5%	1/16W
R2732	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R2733	1-218-977-11	RES-CHIP	100K	5%	1/16W
R2741	1-218-953-11	RES-CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			
R2742	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2746	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R2803	1-218-990-11	SHORT CHIP	0		
R2901	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2902	1-218-953-11	RES-CHIP	1K	5%	1/16W
R2903	1-218-965-11	RES-CHIP	10K	5%	1/16W
R2904	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3001	1-216-864-11	METAL CHIP	0	5%	1/16W
R3003	1-218-971-11	RES-CHIP	33K	5%	1/16W
R3004	1-218-981-11	RES-CHIP	220K	5%	1/16W
R3005	1-218-960-11	RES-CHIP	3.9K	5%	1/16W
R3006	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3007	1-218-965-11	RES-CHIP	10K	5%	1/16W
R3008	1-218-973-11	RES-CHIP	47K	5%	1/16W
R3009	1-218-973-11	RES-CHIP	47K	5%	1/16W
R3010	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3011	1-218-953-11	RES-CHIP	1K	5%	1/16W
R3012	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R3013	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R3014	1-218-977-11	RES-CHIP	100K	5%	1/16W
R3015	1-218-961-11	RES-CHIP	4.7K	5%	1/16W

< COMPOSITION CIRCUIT BLOCK >

RB1903	1-242-963-21	RES, NETWORK 33X4	(1005)
RB1904	1-242-963-21	RES, NETWORK 33X4	(1005)
RB1906	1-234-375-21	RES, NETWORK 1KX4	(1005)
RB2101	1-234-714-11	RES, NETWORK 56X4	(1005)
RB2102	1-234-377-21	RES, NETWORK 4.7KX4	(1005)
RB2201	1-234-714-11	RES, NETWORK 56X4	(1005)
RB2603	1-234-381-21	RES, NETWORK 100KX4	(1005)
RB2606	1-234-381-21	RES, NETWORK 100KX4	(1005)
RB2702	1-234-381-21	RES, NETWORK 100KX4	(1005)
RB2703	1-234-375-21	RES, NETWORK 1KX4	(1005)
RB3001	1-234-371-21	RES, NETWORK 47X4	(1005)

< VIBRATOR >

X1501	1-795-694-11	QUARTZ CRYSTAL OSCILLATOR (66MHz)(TRV33)
X1501	1-795-695-21	QUARTZ CRYSTAL OSCILLATOR (54MHz)(TRV33E)
X2601	1-760-655-41	VIBRATOR, CRYSTAL (20MHz)
X2701	1-781-620-21	VIBRATOR, CERAMIC (48MHz)

9-876-223-11

Sony EMCS Co.

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Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2003.02	Official Release	—	—
1.1	2003.06	Correction-1	Change of the parts S.M. Correction: Page 4-56, Page 5-22	Yes